What is claimed is:

1. A method for reducing sparkle artifacts in a liquid crystal imager, comprising the steps of:

dividing a video signal for a picture into a higher brightness level signal and a lower brightness level signal;

low pass filtering said lower brightness level signal;

delaying said higher brightness level signal to match a processing delay incurred by said low pass filtering; and,

combining said low pass filtered lower brightness level signal and said delay matched higher brightness level signal to generate a modified video signal less likely to result in sparkle artifacts in said imager.

2. The method of claim 1, comprising the step of dividing said video signal in accordance with a transition between lower and higher gain portions of a gamma table associated with said imager.

3. The method of claim 1, wherein said dividing step comprises the steps of:

selecting a brightness level threshold;

comparing successive input brightness levels of said video signal to said selected threshold;

for each said input brightness level greater than said threshold in said comparing step, assigning to said higher brightness level signal a brightness level equal to a difference between said greater input brightness level and said threshold and assigning to said lower brightness level signal a brightness level equal to said threshold; and,

for each said input brightness level less than said threshold in said comparing step, assigning to said higher brightness level signal a brightness level equal to zero and

assigning to said lower brightness level signal a brightness level equal to said input brightness level.

4. The method of claim 3, comprising the steps of:

assigning to said higher brightness level signal a brightness level equal to zero if said input brightness level is equal to said threshold; and,

assigning to said lower brightness level signal a brightness level equal to said input brightness level if said input brightness level is equal to said threshold.

5. The method of claim 1, comprising the step of low pass filtering said lower brightness level signal in accordance with a normalized 1:2:1 Z-transform, said lower brightness level signal being thereby subjected to a time delay.

6. The method of claim 5, comprising the step of delaying said higher brightness level signal by said time delay.

7. The method of claim 1, comprising the steps of:

applying said sparkle reducing steps to a luminance signal for said picture;

delaying chrominance signals for said picture; and,

generating a plurality of video drive signals from said modified luminance signal and said delayed chrominance signals.

8. The method of claim 7, comprising the steps of:

applying said sparkle reducing steps to at least one of said video drive signals; and,

delaying all non-sparkle-reduced video drive signals.

9. The method of claim 1, comprising the steps of:

generating a plurality of video drive signals from luminance and chrominance signals;

applying said sparkle reducing steps to at least one of said video drive signals; and,

delaying all non-sparkle-reduced video drive signals.

10. The method of claim 7, comprising the step of applying said sparkle reducing steps to each of said video drive signals.

11. A circuit for reducing sparkle artifacts in a liquid crystal imager, comprising:

means for dividing a video signal for a picture into a higher brightness level signal and a lower brightness level signal;

means for low pass filtering said lower brightness level signal;

means for delaying said higher brightness level signal to match a processing delay incurred by said low pass filtering; and,

means for combining said low pass filtered lower brightness level signal and said delay matched higher brightness level signal to generate a modified video signal less likely to result in sparkle artifacts in said imager.

12. The circuit of claim 11, wherein said dividing means comprises:

a register for storing a selected threshold value;

a comparator for comparing successive input brightness levels of said video signal to said selected threshold value;

an algebraic circuit for subtracting said threshold value from every one of said input brightness levels greater than said threshold;

a clipping circuit for limiting to said threshold value every one of said input brightness levels greater than said threshold value

a first gate for propagating a zero value brightness level for every one of said input brightness levels less than said threshold value;

a second gate for propagating said input brightness level for every one of said input brightness levels less than said threshold; and,

said higher brightness signal is formed by outputs from said algebraic circuit and said first gate and said lower brightness level signal is formed by outputs from said clipping circuit and said second gate.

13. The circuit of claim 12, wherein:

said higher brightness level signal is formed by said output of said first gate when said input brightness level is equal to said threshold value; and,

said lower brightness level signal is formed by said output of said second gate when said input brightness level is equal to said threshold value.

14. The circuit of claim 11, wherein said threshold value relates to a transition between lower and higher gain portions of a gamma table associated with said imager.

+

15. The circuit of claim 11, wherein said means for low pass filtering applies a normalized 1:2:1 Z-transform to said lower brightness level signal, said lower brightness level signal being thereby subjected to a time delay.

16. The circuit of claim 15, wherein said higher brightness level signal is delayed by said time delay.

17. The circuit of claim 11, further comprising:

means for delaying chrominance signals for said picture; and,

means for generating a plurality of video drive signals from a modified luminance signal and said delayed chrominance signals.

18. The circuit of claim 17, comprising the steps of:

means for dividing at least one of said video drive signals into a higher brightness level video drive signal and a lower brightness level video drive signal;

means for low pass filtering said lower brightness level video drive signal;

means for delaying said higher brightness level video drive signal to match a processing delay incurred by said low pass filtering; and,

means for combining said low pass filtered lower brightness level video drive signal and said delay matched higher brightness level video drive signal to generate a modified video drive signal resulting in a further reduction of declination in said imager.

19. The circuit of claim 18, wherein said brightness level thresholds for said luminance signal dividing means and said video drive signal dividing means are independently selectable.

20. The circuit of claim 18, comprising:

respective means for dividing, low pass filtering, delaying and combining each one of said video drive signals; and,

each of said luminance signal dividing means and said video drive signal dividing means having independently selectable brightness level thresholds.

21. A circuit for reducing sparkle artifacts in a liquid crystal imager, comprising:

a decomposer for dividing a video signal for a picture into a higher brightness level signal and a lower brightness level signal;

a low pass filter for processing said lower brightness level signal, said low pass filtered lower brightness level signal being delayed;

a delay circuit for said higher brightness level signal matched to said processing delay in said low pass filter; and,

an algebraic circuit for combining said low pass filtered lower brightness level signal and said delay matched higher brightness level signal, and generating a modified video signal less likely to result in sparkle artifacts in said imager.

22. The circuit of claim 21, wherein said decomposer circuit has a selectable threshold value.

23. The circuit of claim 22, wherein said threshold value is related to a transition between lower and higher gain portions of a gamma table associated with said imager.

24. The circuit of claim 21, wherein said low pass filter applies a normalized 1:2:1 Z-transform to said lower brightness level signal, said lower brightness level signal being thereby subjected to a time delay.

25. The circuit of claim 24, wherein said higher brightness level signal is delayed by said time delay.

26. The circuit of claim 21, further comprising:

delay circuits for delay matching chrominance signals for said picture with a modified luminance signal; and,

a color space converter for generating a plurality of video drive signals from said modified luminance signal and said delay matched chrominance signals.

27. The method of claim 26, further comprising:

a further decomposer for dividing at least one of said video drive signals into a higher brightness level video drive signal and a lower brightness level video drive signal;

a further low pass filter for said lower brightness level video drive signal;

a further delay circuit for delaying said higher brightness level video drive signal to match a processing delay incurred by said low pass filter; and,

a further algebraic circuit for combining said low pass filtered lower brightness level video drive signal and said delay matched higher brightness level video drive signal to generate a modified video drive signal, resulting in a further reduction of declination in said imager.

28. The circuit of claim 27, wherein said decomposer and said further decomposer have independently selectable brightness level thresholds.

29. The circuit of claim 27, comprising:

respective decomposers, low pass filters, delay circuits and algebraic circuits for processing each one of said video drive signals; and,

each of said decomposers having independently selectable brightness level thresholds.